97-84019-8

Presidents' Conference Committee (U.S.)

Report on the reproduction cost new and...

Philadelphia

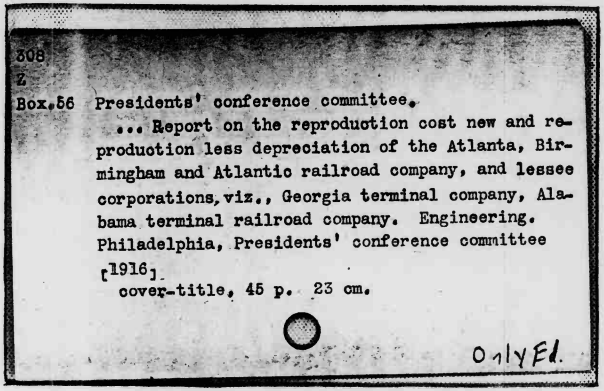
[1916]

91-84019-8
MASTER NEGATIVE #

COLUMBIA UNIVERSITY LIBRARIES
PRESERVATION DIVISION

BIBLIOGRAPHIC MICROFORM TARGET

ORIGINAL MATERIAL AS FILMED - EXISTING BIBLIOGRAPHIC RECORD


308
Z
Box.56 Presidents' conference committee.
... Report on the reproduction cost new and reproduction less depreciation of the Atlanta, Birmingham and Atlantic railroad company, and lessee corporations, viz., Georgia terminal company, Alabama terminal railroad company. Engineering. Philadelphia, Presidents' conference committee [1916]
cover-title, 45 p. 23 cm.
Only Ed.

RESTRICTIONS ON USE: *Reproductions may not be made without permission from Columbia University Libraries.*

TECHNICAL MICROFORM DATA

FILM SIZE: 35mm REDUCTION RATIO: 11:1 IMAGE PLACEMENT: IA (IIA) IB IIB

DATE FILMED: 2-7-97 INITIALS: RB

TRACKING # : 21303

FILMED BY PRESERVATION RESOURCES, BETHLEHEM, PA.

Prof. E. R. A. Seligman

Printed by General Secretary for
Committees' Use, But Not Published
7 5 1916

308
2
R31R6

REPORT ON THE REPRODUCTION COST NEW AND REPRODUCTION LESS DEPRECIATION

OF THE

ATLANTA, BIRMINGHAM AND ATLANTIC RAILROAD COMPANY

AND LESSEE CORPORATIONS, VIZ.:

GEORGIA TERMINAL COMPANY

ALABAMA TERMINAL RAILROAD COMPANY

ENGINEERING

OFFICE OF
GENERAL SECRETARY
PRESIDENTS' CONFERENCE COMMITTEE
PHILADELPHIA, PA.

I. CORPORATE DATA AND DESCRIPTION.

Owned and Operated.

The Atlanta, Birmingham & Atlantic Railroad Company was incorporated in the State of Georgia April 19, 1905, and chartered for a term of 101 years for the purpose of constructing and operating a railroad from Montezuma, Ga., to Birmingham, Ala., and by amendment of April 19, 1906, this charter was extended to authorize the construction of a branch to Atlanta.

By purchase on April 12, 1906, this company acquired the properties of the Atlantic & Birmingham Railway, which company owned about 340 miles of main track extending from Brunswick to Montezuma, Ga., with branches to Waycross and Thomasville, Ga., and a line from Ocilla to Irwinsville, Ga.

The road is single track with the main line about 477 miles in length between Brunswick, Ga., and Birmingham, Ala., and the branches above mentioned.

The terminals in Atlanta and Birmingham are leased by the Atlanta, Birmingham & Atlantic Railroad Company from the Georgia Terminal Company and Alabama Terminal Railroad Company. The Atlanta, Birmingham & Atlantic Railroad Company leases to the Ocilla Southern Railway the line between Irwinsville and Ocilla.

The property owned and operated by the Atlanta, Birmingham & Atlantic Railroad is shown in the following table:

Mileage Owned and Operated.

Val. Sec.	From	To	Miles of Main Track	Miles of 2d Main Track	Miles of Yard Track and Sidings	Miles of all Tracks
1	Brunswick, Ga.	Terminal	10.550		20.825	31.375
2	Southern Junction	Sessoms	71.985		12.252	84.237
2a	Waycross, Ga.	Fitzgerald, Ga.	69.093		14.087	83.180
3	Fitzgerald, Ga.	Terminal	3.554	1.550	18.746	23.850
4	Thomasville, Ga.	Fitzgerald, Ga.	80.373		14.500	94.873
5	Fitzgerald, Ga.	Montezuma, Ga.	66.423		13.082	79.505
6	Montezuma, Ga.	Manchester, Ga.	60.760		13.063	73.823
7	Manchester, Ga.	Terminal	2.572		8.877	11.449
8	Manchester, Ga.	Atlanta, Ga.	74.680		10.561	85.241
10	Manchester, Ga.	Ga.-Ala. State Line	42.797		10.326	53.123
	Total in State of Georgia		482.787	1.550	136.319	620.656
11	Ga.-Ala. State Line	Talladega, Ala.	79.413		20.189	99.602
12	Talladega, Ala.	Bessemer, Ala.	61.613		6.920	68.533
	Total in State of Alabama		141.026		27.109	168.135
	Total owned and operated		623.613	1.550	163.428	788.791

Owned and Leased to Others.

The Atlanta, Birmingham & Atlantic Railroad Company owns and leases to J. A. Henderson and the Ocilla Southern Railroad Company that portion of its property between Ocilla and Irwinsville, as follows:

Mileage Owned and Leased—All in Georgia.

Val. Sec.	From	To	Miles of Road	Miles of Yard Tracks and Sidings	Miles of all Tracks
4a	Ocilla, Ga.	Irwinsville, Ga.	9.742	1.001	10.743

Telegraph Lines.

The telegraph property aside from a few local telephone circuits is owned by the Atlanta, Birmingham & Atlantic Railroad Company and leased to the Western Union Telegraph Company with a provision for the use of a portion of the property for railroad purposes.

The local telephone circuits are owned and operated by the Atlanta, Birmingham & Atlantic Railroad Company.

The telegraph property leased to the Western Union consists of pole lines carrying a varying number of wires, these pole lines being located as shown in the following table:

Mileage of Pole Line Owned and Leased.

Location	Miles Pole Line
Waycross to Sessoms and Bushnell to Fitzgerald	45.5
Fitzgerald Terminal	3.5
Tifton to Thomasville	56.4
Fitzgerald to Montezuma	66.5
Montezuma to Manchester	61.0
Manchester Terminal	2.12
Manchester to Atlanta	76.26
Manchester to Georgia-Alabama Line	42.91
Total in Georgia	354.33
Alabama-Georgia Line to Talladega	79.24
Talladega to Birmingham	74.04
Total in Alabama	153.28
Total owned and leased	507.61

History of Construction.

The history of construction of the Atlanta, Birmingham & Atlantic Railroad readily divides itself into two periods: The first covering the construction at different periods of a series of short railroads built principally for the development of the lumber industry and now included in that portion of the present property lying east of Montezuma; the second, the acquirement by purchase and consolidation of these lines and the construction of that portion of the road west of Montezuma to reach two principal industrial centers of the south, Atlanta and Birmingham.

The various roads making up the present corporation were constructed as follows:

The Brunswick & Birmingham Railroad from Brunswick to Thalmann (the latter point being a connection with the Seaboard Air Line) was built in 1902 and was extended to Offerman, on the Atlantic Coast Line, in 1903. In the construction of the latter portion of this road use was made of thirteen miles of abandoned grade constructed some twenty years previously by another corporation. That portion of the road between Offerman and Nichols was constructed as a logging road to serve a large mill at Offerman in 1887, and was sold to the Brunswick & Birmingham in 1902.

The Waycross Air Line, originally projected as a lumber road, was constructed in 1893 from Waycross to a large mill at Watertown. It was subsequently extended in order to obtain timber until it reached Sessoms in 1898. Between 1898 and 1903 this road was extended 113 miles to Montezuma, Ga., the name of the corporation being changed in 1901 to the Atlantic & Birmingham Railroad.

The line of road between Thomasville and Fitzgerald was constructed by two corporations, that portion between Thomasville and Tifton in 1899 under the name of the Tifton, Thomasville & Gulf, and the portion between Tifton and Fitzgerald in 1896 under the name of the Tifton & Northeastern. In 1903 these roads were consolidated with the Atlantic & Birmingham Railroad under the name of the Atlantic & Birmingham Railway. The following year this latter company purchased the Brunswick & Birmingham Railroad Company at a receiver's sale.

INTENTIONAL SECOND EXPOSURE

Owned and Leased to Others.

The Atlanta, Birmingham & Atlantic Railroad Company owns and leases to J. A. Henderson and the Ocilla Southern Railroad Company that portion of its property between Ocilla and Irwinsville, as follows:

Mileage Owned and Leased—All in Georgia.

Val. Sec.	From	To	Miles of Road	Miles of Yard Tracks and Sidings	Miles of all Tracks
4a	Ocilla, Ga.	Irwinsville, Ga.	9.742	1.001	10.743

Telegraph Lines.

The telegraph property aside from a few local telephone circuits is owned by the Atlanta, Birmingham & Atlantic Railroad Company and leased to the Western Union Telegraph Company with a provision for the use of a portion of the property for railroad purposes.

The local telephone circuits are owned and operated by the Atlanta, Birmingham & Atlantic Railroad Company.

The telegraph property leased to the Western Union consists of pole lines carrying a varying number of wires, these pole lines being located as shown in the following table:

Mileage of Pole Line Owned and Leased.

Location	Miles Pole Line
Waycross to Sessoms and Bushnell to Fitzgerald	45.5
Fitzgerald Terminal	3.5
Tifton to Thomasville	56.4
Fitzgerald to Montezuma	66.5
Montezuma to Manchester	61.0
Manchester Terminal	2.12
Manchester to Atlanta	76.26
Manchester to Georgia–Alabama Line	42.91
Total in Georgia	354.33
Alabama-Georgia Line to Talladega	79.24
Talladega to Birmingham	74.04
Total in Alabama	153.28
Total owned and leased	507.61

History of Construction.

The history of construction of the Atlanta, Birmingham & Atlantic Railroad readily divides itself into two periods: The first covering the construction at different periods of a series of short railroads built principally for the development of the lumber industry and now included in that portion of the present property lying east of Montezuma; the second, the acquirement by purchase and consolidation of these lines and the construction of that portion of the road west of Montezuma to reach two principal industrial centers of the south, Atlanta and Birmingham.

The various roads making up the present corporation were constructed as follows:

The Brunswick & Birmingham Railroad from Brunswick to Thalmann (the latter point being a connection with the Seaboard Air Line) was built in 1902 and was extended to Offerman, on the Atlantic Coast Line, in 1903. In the construction of the latter portion of this road use was made of thirteen miles of abandoned grade constructed some twenty years previously by another corporation. That portion of the road between Offerman and Nichols was constructed as a logging road to serve a large mill at Offerman in 1887, and was sold to the Brunswick & Birmingham in 1902.

The Waycross Air Line, originally projected as a lumber road, was constructed in 1893 from Waycross to a large mill at Watertown. It was subsequently extended in order to obtain timber until it reached Sessoms in 1898. Between 1898 and 1903 this road was extended 113 miles to Montezuma, Ga., the name of the corporation being changed in 1901 to the Atlantic & Birmingham Railroad.

The line of road between Thomasville and Fitzgerald was constructed by two corporations, that portion between Thomasville and Tifton in 1899 under the name of the Tifton, Thomasville & Gulf, and the portion between Tifton and Fitzgerald in 1896 under the name of the Tifton & Northeastern. In 1903 these roads were consolidated with the Atlantic & Birmingham Railroad under the name of the Atlantic & Birmingham Railway. The following year this latter company purchased the Brunswick & Birmingham Railroad Company at a receiver's sale.

The Atlanta, Birmingham & Atlantic Railroad began construction at Montezuma in 1905 and completed the road in 1908 as far as Atlanta, Ga., and Pelham, Ala., from which latter point a temporary entrance into Birmingham was obtained over the tracks of the Louisville & Nashville Railroad Company.

The Atlanta, Birmingham & Atlantic Railroad Company purchased and reconstructed, in accordance with their own standards, the Eastern Railway of Alabama. This road was sixteen miles in length between Byriton, Ala., and Carara, Ala., and had been constructed in 1904 for the purpose of serving certain mines in this territory. On account of the low standards under which this road was originally built the reconstruction was extensive, only about forty per cent. of the Eastern of Alabama being utilized.

In 1900 the Ocilla & Irwinsville Railroad was chartered, and in the following year constructed its line from Ocilla to the Alapeha River. This road was purchased in 1903 by the Brunswick & Birmingham Railroad and extended to a connection with the Atlantic & Birmingham Railroad at Bushnell. The latter road was merged into the Atlantic & Birmingham Railroad in 1903 and that portion of the road between Bushnell and Ocilla was abandoned and the track partially removed. The remaining property passed to the Atlanta, Birmingham & Atlantic Railroad and was leased by them as above stated.

The property is constructed in accordance with very low standards and is poorly maintained.

Ocean Terminus.

Brunswick, Ga., a city of about 12,000 population, located on the harbor formed by the Brunswick River and St. Simons Sound, is the ocean terminus of the road.

The Atlanta, Birmingham & Atlantic Railroad ocean terminals are located about one mile from the center of the city and about thirteen miles measured along the ship channel from the Atlantic Ocean.

The terminals consist of two piers 140 feet wide (one of them being 560 feet long, the other 768 feet), a coaling trestle, and a dredged basin 250 feet wide and 1680 feet long. There are also

four large warehouses, cotton sheds, a power plant, and fire protection system. The piers are on concrete piles and the slips are protected where necessary by reinforced concrete sheet piling. The terminal structures are well built, but the facilities are designed on an elaborate basis apparently much beyond any reasonable traffic expectation and much of the plant has been idle since its creation. The location of the terminal in a bend of the ship channel is such that the slips and basin are filled rapidly by the silt-bearing river. Six years after the construction of the plant several hundred thousand yards of material were dredged from the slips in order to restore the original depth and a creosoted timber breakwater was constructed to deflect the silt-bearing currents. This plan has not proven efficacious and at the time of inventory there was much less depth of water in the slips than was originally provided.

There was an extensive ice and cold storage plant constructed, but the machinery has been sold and the plant abandoned. The coaling trestle for ships has not been maintained and would require entire reconstruction in order to put it in condition for service. To all practical purposes it is abandoned.

The terminals within the city of Brunswick consist of well-built brick passenger and freight stations, together with a small switching yard and some old and dilapidated brick shop buildings.

General Description.

Since its purchase by the Atlanta, Birmingham & Atlantic Railroad the main track between Brunswick and Montezuma has been relaid with new eighty-pound rail, and the roadbed section has been generally improved. The bridges on this section are for the most part of timber construction. The roadbed between Waycross and Sessoms and between Thomasville and Fitzgerald has been improved, but the condition of rail and ties is poor.

The station and roadway buildings constructed by the old companies were of a low grade and have been poorly maintained. These have been replaced by the Atlanta, Birmingham & Atlantic Railroad at several points, such as Thalmann and Fitzgerald. At the latter place a large reinforced concrete

passenger station, with the division offices on the second floor, has been constructed.

West of Montezuma the road was built in accordance with much higher standards of construction than east of that point. The main track rail is eighty pound, the buildings and water stations are usually first class, and the bridges are practically all steel or concrete. The rolling equipment owned and operated is adequate for the requirements of the road except that the number of freight cars is slightly less than needed. The maintenance of the freight cars is generally below normal.

Shops.

The main shops of the company are located at Fitzgerald, Ga., and consist of sixteen brick and steel buildings, together with a number of smaller frame buildings, equipped with the necessary machinery.

There are small shops at Manchester and Talladega equipped with a small amount of machinery for making running repairs and minor installations at Brunswick, Atlanta and Birmingham.

Trackage and Leases.

In addition to the operated property, both owned and leased, mentioned above, the Atlanta, Birmingham & Atlantic uses, under trackage agreements and other forms of tenancy, the following:

About 1000 feet of track belonging to the Atlantic Coast Line are used to reach the passenger and freight stations at Waycross, Ga.

At Atlanta, in addition to the freight facilities belonging to the Georgia Terminal Company, the Atlanta, Birmingham & Atlantic uses the large, modern passenger station belonging to the Atlantic Terminal Company, and in order to reach it the passenger trains use about 1.65 miles of track belonging to the Southern Railway. In the same way at Birmingham, the passenger station of the Birmingham Terminal Company is used, and in order to reach it the Atlanta, Birmingham & Atlantic passenger trains use about 1840 feet of track belonging to the Louisville & Nashville Railroad Company.

Connections with Other Carriers.

The Atlanta, Birmingham & Atlantic has connection for the interchange of business with other carriers at the following points:

Brunswick, Ga., with Southern Railway, Atlantic Coast Line, Georgia Coast & Piedmont.

Thalmann, Ga., with Seaboard Air Line.

Hortense, Ga., with Atlantic Coast Line.

Offerman, Ga., with Atlantic Coast Line.

Douglas, Ga., with Georgia & Florida.

Osierfield, Ga., with Fitzgerald, Ocilla & Broxton.

Fitzgerald, Ga., with Seaboard Air Line, Ocilla Southern.

Waycross, Ga., with Atlantic Coast Line, Waycross & Western, Waycross & Southern.

Thomasville, Ga., with Atlantic Coast Line, Florida Central.

Moultrie, Ga., with Georgia & Florida, Georgia Northern, Valdosta, Moultrie & Western, Flint River & Northeastern.

Tifton, Ga., with Atlantic Coast Line, Georgia Southern & Florida.

Double Run, Ga., with Hawkinsville & Florida Southern.

Cordele, Ga., with Georgia Southern & Florida, Georgia Southwestern & Gulf, Seaboard Air Line.

Vienna, Ga., with Georgia Southern & Florida.

Oglethorpe, Ga., with Central of Georgia.

Junction City, Ga., with Central of Georgia.

Woodbury, Ga., with Southern Railway, Macon & Birmingham.

Senoia, Ga., with Central of Georgia.

Union City, Ga., with Western of Alabama.

Atlanta, Ga., with Southern Railway, Georgia Railroad, Atlanta & West Point, Central of Georgia, Louisville & Nashville, Nashville, Chattanooga & St. Louis, Seaboard Air Line.

Bullockville, Ga., with Southern Railway.

Durand, Ga., with Central of Georgia.

La Grange, Ga., with Western of Alabama, Macon & Birmingham.

Roanoke, Ala., with Central of Georgia.

Talladega, Ala., with Southern Railway, Louisville & Nashville.

INTENTIONAL SECOND EXPOSURE

passenger station, with the division offices on the second floor, has been constructed.

West of Montezuma the road was built in accordance with much higher standards of construction than east of that point. The main track rail is eighty pound, the buildings and water stations are usually first class, and the bridges are practically all steel or concrete. The rolling equipment owned and operated is adequate for the requirements of the road except that the number of freight cars is slightly less than needed. The maintenance of the freight cars is generally below normal.

Shops.

The main shops of the company are located at Fitzgerald, Ga., and consist of sixteen brick and steel buildings, together with a number of smaller frame buildings, equipped with the necessary machinery.

There are small shops at Manchester and Talladega equipped with a small amount of machinery for making running repairs and minor installations at Brunswick, Atlanta and Birmingham.

Trackage and Leases.

In addition to the operated property, both owned and leased, mentioned above, the Atlanta, Birmingham & Atlantic uses, under trackage agreements and other forms of tenancy, the following:

About 1000 feet of track belonging to the Atlantic Coast Line are used to reach the passenger and freight stations at Waycross, Ga.

At Atlanta, in addition to the freight facilities belonging to the Georgia Terminal Company, the Atlanta, Birmingham & Atlantic uses the large, modern passenger station belonging to the Atlantic Terminal Company, and in order to reach it the passenger trains use about 1.65 miles of track belonging to the Southern Railway. In the same way at Birmingham, the passenger station of the Birmingham Terminal Company is used, and in order to reach it the Atlanta, Birmingham & Atlantic passenger trains use about 1840 feet of track belonging to the Louisville & Nashville Railroad Company.

Connections with Other Carriers.

The Atlanta, Birmingham & Atlantic has connection for the interchange of business with other carriers at the following points:

Brunswick, Ga., with Southern Railway, Atlantic Coast Line, Georgia Coast & Piedmont.

Thalmann, Ga., with Seaboard Air Line.

Hortense, Ga., with Atlantic Coast Line.

Offerman, Ga., with Atlantic Coast Line.

Douglas, Ga., with Georgia & Florida.

Osierfield, Ga., with Fitzgerald, Ocilla & Broxton.

Fitzgerald, Ga., with Seaboard Air Line, Ocilla Southern.

Waycross, Ga., with Atlantic Coast Line, Waycross & Western, Waycross & Southern.

Thomasville, Ga., with Atlantic Coast Line, Florida Central.

Moultrie, Ga., with Georgia & Florida, Georgia Northern, Valdosta, Moultrie & Western, Flint River & Northeastern.

Tifton, Ga., with Atlantic Coast Line, Georgia Southern & Florida.

Double Run, Ga., with Hawkinsville & Florida Southern.

Cordele, Ga., with Georgia Southern & Florida, Georgia Southwestern & Gulf, Seaboard Air Line.

Vienna, Ga., with Georgia Southern & Florida.

Oglethorpe, Ga., with Central of Georgia.

Junction City, Ga., with Central of Georgia.

Woodbury, Ga., with Southern Railway, Macon & Birmingham.

Senoia, Ga., with Central of Georgia.

Union City, Ga., with Western of Alabama.

Atlanta, Ga., with Southern Railway, Georgia Railroad, Atlanta & West Point, Central of Georgia, Louisville & Nashville, Nashville, Chattanooga & St. Louis, Seaboard Air Line.

Bullockville, Ga., with Southern Railway.

Durand, Ga., with Central of Georgia.

La Grange, Ga., with Western of Alabama, Macon & Birmingham.

Roanoke, Ala., with Central of Georgia.

Talladega, Ala., with Southern Railway, Louisville & Nashville.

Arkwright, Ala., with Central of Georgia.

Pelham, Ala., with Louisville & Nashville.

Birmingham, Ala., with Alabama Great Southern, Birmingham Southern, Central of Georgia, Frisco Lines, Illinois Central, Louisville & Nashville, Mobile & Ohio, Seaboard Air Line, Southern Railway.

II. GENERAL DESCRIPTION OF COUNTRY TRAVERSED.

Topography.

Valuation sections Nos. 1, 2, 2a and 3 are on the flat coastal plain which rises very gradually as the line of the road goes westward from the coast. The streams generally have flat gradients and sluggish currents, and the lands adjoining are usually low and swampy. Valuation sections Nos. 4 and 5 are further from the coast in more rolling country and the stream valleys and channels are more clearly defined than in the first group of sections mentioned. Valuation sections Nos. 6, 7, 8 and 10 are along the foot hills of the Blue Ridge Mountains. The country is quite broken; many of the stream valleys are of considerable depth and the construction work is considerably heavier than on the more easterly portions of the road. Valuation sections 11 and 12 pass through the Blue Ridge and the main range of the Allegheny Mountains; the country is rough and rugged, the line is located across the general drainage, and the work for almost the entire length of both sections is heavy.

Geology.

From Brunswick, for a short distance inland, the formation is the Quarternary and Later Tertiary periods, marls of the latter period having been found in dredging in Brunswick harbor. The soil is a light, sandy clay extending from the eastern terminus of the road to the vicinity of Cordele, Ga. There is consequently found very little classified material in the grading quantities.

From this vicinity to the neighborhood of Manchester the formation is Early Tertiary, consisting of sand, clay, marl

and limestone, the latter usually impure. There is naturally found through this territory some solid rock and a considerable amount of material which is classified as loose rock.

From Manchester to the vicinity of La Grange and Senoia the Pro Cambrian formation is encountered. The rock is largely granite and gneiss, but is overlaid with a considerable amount of clayey soil. Where the grading is heavy there is a large proportion of solid rock.

The formation between these points and the western termini (Atlanta and Birmingham) is intrusive rock of the Post Cambrian period. It consists of sandstone, schists, granite and gneiss. The soil is largely clay, but a considerable proportion of the grading quantities is solid rock.

Climate.

The rainfall over the entire length of the line varies from forty-five to fifty-five inches per annum. The temperature near the coast seldom reaches the freezing point or passes above 100° F. The average minimum in Atlanta and Birmingham is above twenty degrees above zero and the maximum seldom over 100°. Neither rainfall nor temperature should seriously affect the progress of construction work.

Products and Business.

Brunswick, Ga., the Atlantic Coast terminus of the Atlanta, Birmingham & Atlantic is a city of about 12,000 inhabitants, with very little manufacturing, except for one plant manufacturing naval stores. It is also a very considerable market for crossties and other railroad timber which are shipped to the consumers by water.

Waycross, Ga., the eastern terminus of one of the branches, is a city of 15,000 inhabitants, without any large manufacturing plants, except that of the Southern Car and Foundry Company and several large saw mills.

Thomasville, Ga., the terminus of the other branch, is a city of about 7000 in population, with a number of small manufacturing plants. Both Waycross and Thomasville are supply centers for a prosperous farming territory.

There is no manufacturing of consequence west of these points except a number of cotton mills at Moultrie, Tifton, La Grange, and the manufacture of timber products at Tifton and in a lesser degree at some other points.

Atlanta is a city with a population of about 150,000 and is the largest supply point for general products in the southeast. There are a number of large manufacturing plants and many smaller ones, producing a great variety of products. It is also a large market for horses and mules.

Birmingham, Ala., with a population of about 150,000 is the steel and iron manufacturing point south of the Ohio River, and the Birmingham District is a very large producer of commercial coal. In addition to the iron and steel mills there are a number of smaller manufacturing plants making a large variety of articles, mainly products of iron.

The territory tributary to the Atlanta, Birmingham & Atlantic is all, except that portion between Roanoke and Birmingham, capable of producing cotton, corn, early vegetables and fruits. The agricultural conditions are improving and the traffic to be derived from this source should materially increase. The yellow pine timber with which this region was formerly heavily forested has to a great extent been cut and much of the land has grown up with an inferior second-growth timber.

In the State of Alabama about one-third of the total freight traffic originates on the line of the road. Nearly one-half of the total traffic is bituminous coal, while about one-fourth is made up of agricultural and forest products.

In Georgia forty per cent. of the traffic is from agricultural and forests and only twenty-nine per cent. from mines. About forty-five per cent. of this traffic originates on the line of road.

The passenger traffic is practically all local and in the year ending June 30, 1914, amounted to about 30,000,000 passenger miles, and the freight traffic to 364,000,000 ton miles.

On account of the Atlanta, Birmingham & Atlantic having the lowest rate of grade of any of the roads operating between Birmingham and the Atlantic seaboard it is able to handle this coal and other low grade freight with considerable effectiveness.

III. PROGRAM FOR REPRODUCTION.

There seems to be no justification, from the standpoint of traffic, for expediting the construction of any single portion of the road beyond the date of completion of the entire road, and therefore the interest charge will be lessened by not beginning the construction of the lighter parts of the work until some time after the beginning of work on the heavier portions in order that the entire road may be completed at about the same time.

This plan requires the beginning of construction of large, isolated items of property (such as the water terminal at Brunswick) somewhat in advance of the general construction of the east end of the road.

General Offices.

The general office of the Atlanta, Birmingham & Atlantic Railroad Company should be located in Atlanta, Ga. The organization is assumed to consist of a President and General Manager, a Secretary, a Treasurer, a General Counsel and a Purchasing Agent, with the necessary assistants and clerical forces.

Engineering Organization.

The Engineering Department should be organized with a Chief and Assistant Chief Engineer, together with a Bridge Engineer, Architect, and the necessary force of draftsmen, assistant engineers and clerks.

The Mechanical Department, consisting of a Superintendent of Motive Power, Rolling Stock and Machinery, with the necessary assistant engineers, inspectors and clerks, would be located at Fitzgerald, Ga.

For purposes of location and construction the road is assumed to be divided into seven divisions, with a Division Engineer in charge of each, with the necessary clerks and assistants, each division to be divided into residencies, depending in number on the character of the work. The location of the division offices and the territory to be included in each division would be as follows:

Location of Office	Extent of Division
Brunswick.....Ga.	Brunswick, Ga., to Ambrose, Ga., and Waycross, Ga., to Sessoms, Ga.
Fitzgerald.....Ga.	Thomasville, Ga., to Fitzgerald, Ga., Ambrose, Ga., to Fitzgerald, Ga., and Ocilla, Ga., to Irwinsville, Ga.
Oglethorpe.....Ga.	Fitzgerald, Ga., to Manchester, Ga.
Senoia.....Ga.	Manchester, Ga., to Atlanta, Ga., including the Georgia Terminal Company.
La Grange.....Ga.	Manchester, Ga., to Malone, Ala.
Talladega.....Ala.	Malone, Ala., to Arkwright, Ala.
Bessemer.....Ala.	Arkwright, Ala., to Bessemer, Ala., and also the property of the Alabama Terminal Railroad Company.

Material Yards.

The reconstruction program provides for the delivery to the line of the Atlanta, Birmingham & Atlantic Railroad of the greater portion of the materials and supplies needed for the construction of the road at nine general supply points. Material storage yards will be established at these points and all the rail fastenings, such ties as are not obtained locally, a portion of the culvert, trestles, and building material, and the larger portion of the water and fuel station material will be distributed from these yards and handled to the point of use over the Atlanta, Birmingham & Atlantic track as it is laid. These locations have been selected at junction points with one or more important rail lines as follows:

Brunswick, Ga., a seaport as well as a rail junction; Oglethorpe, Ga., Waycross, Ga., Tifton, Ga., Cordele, Ga., Atlanta, Ga., La Grange, Ga., Talladega, Ala., Bessemer, Ala.

In addition to these general supply yards part of the material used for culverts, both sub and superstructure of bridges, buildings, water and fuel stations will be delivered at other minor junction or adjacent points to the place where the material is to be used.

Source of Material.

The principal materials entering into the construction of the road were assumed to be furnished from the points shown in the following statement:

Item.	Source.
Rail	Sparrow's Point, Va., and Ensley, Ala.
Angle Bars	Ensley, Ala.
Patented Rail Joints	Lackawanna, N. Y.
Tracks, Spikes	Pittsburgh, Pa. (base).
Frogs, Switches, etc.	Philadelphia, Pa., and Birmingham, Ala.
Switch and Bridge Ties	Tifton, Ga., Harmony Junction, Ga.
Bridge Timber and Rough Lumber	Lumber City, Ga., Valdosta, Ga.
	Pinebloom, Ga., Alexander City, Ala.
	Tuscaloosa, Ala., and Clanton, Ala.
Finishing Lumber	Macon, Ga., Atlanta, Ga., Birmingham, Ala.
Metal Bridges	Pittsburgh, Pa. (base).
Cast-Iron Pipe	Chattanooga, Tenn., and Birmingham, Ala.
Wrought-Iron Pipe	Pittsburgh, Pa. (base).
Vitrified Pipe	Savannah, Ga., Atlanta, Ga., Macon, Ga., Birmingham, Ala.
Signal Material	Swissvale, Pa., and Rochester, N. Y.
Telegraph Material	Atlanta, Ga., Chicago, Ill., Pittsburgh, Pa., etc.
Slag Ballast	Birmingham, Ala.
Electrical Machinery	Chicago, Cincinnati, Schenectady, N. Y., Pittsburgh, Pa.
Shop Machinery	From points of actual manufacture.
Boilers	Barberton, Ohio.
Piles, etc.	Along line of road.
Cross-Ties	Principally along line of road.

Distribution of Material.

The major construction material will be handled from the point of delivery to the Atlanta, Birmingham & Atlantic to the point of use over the construction tracks of the railroad company. This will be the case with ties, rail and rail fastenings, metal bridges, building materials, and similar items.

Cement, concrete aggregate, culvert pipe, timber, and pile, in such quantities as are necessary to permit track layings are assumed to be delivered by Atlanta, Birmingham & Atlantic construction trains or over foreign lines reaching points near the line of the new road and to be hauled by truck or wagon over existing highways from the point of rail delivery to the point of use.

All materials not required to allow track to be laid are to be delivered from the nearest junction point by construction train. Steam shovels and other grading equipment are assumed to be handled generally from railway lines over existing highways to the point of use.

Grading.

The amount of clearing and grubbing east of Montezuma was determined from observation of the character and condition of the land adjoining the right of way.

The grading on valuation sections 1 to 5, inclusive, from Brunswick, Waycross, and Thomasville to Montezuma, except in a few locations, can be most economically done by the waste and borrow method and consequently the two-way method of payment is adopted generally in this territory. In the case of the so-called "Buffalo Swamp," near M. P. 11, between Brunswick and Thalmann, and in the case of a few embankments east of Montezuma there is insufficient material or none available at reasonable cost for embankments, and in these cases it was considered that the track would be supported on temporary trestles or on cribbing and the embankments constructed by loading with steam shovels in borrow pits and hauling the material into place by train over the completed track.

On that portion of the line west of Montezuma, the inspection of the adjoining property showed that there had been no appreciable change in the amount of clearing and grubbing since the

construction of the road, and therefore the amount of clearing and grubbing for which the Atlanta, Birmingham & Atlantic paid was allowed in the reproduction estimate. The grading on this part of the line is much heavier than on the portion east of Montezuma and contains a large amount of classified excavation. As a consequence of this condition all grading on valuation sections 6, 7, 8, 10, 11 and 12 was estimated on a one-way basis.

Labor Markets.

Aside from a relatively small amount of common (negro) labor there is very little local labor available along the line of the road. A limited amount is available at Brunswick, Waycross, Thomasville and Tifton; but the larger part of the labor required (both skilled and unskilled) would have to be obtained from Atlanta, Birmingham and points off the line of the road, such as Macon and Savannah, Ga., Mobile, Ala., and Memphis, Tenn.

Period of Construction.

In order to effect the completion of the road on June 30, 1914, it is estimated that the period of construction will be as follows:

Valuation Section	Time of Beginning	Time of Completion
11 and 12	July 1, 1911	June 30, 1914
7, 8, 10	Jan. 1, 1912	June 30, 1914
6	July 1, 1912	June 30, 1914
1 to 5, incl.	Jan. 1, 1913	June 30, 1914

In establishing this time for construction it is assumed that the tracklaying is kept as close behind the grading as is consistent with economy in the distribution of the rail gangs. It is assumed that buildings, water stations, and similar facilities will be constructed as soon after track is laid to the site as possible and an allowance of three months is made for the completion of these facilities and the ballasting after the completion of the tracklaying.

The water terminal facilities at Brunswick will require about two and one-half years for their construction, and therefore work on them is assumed to be begun January 1, 1912, in order to assure their completion June 30, 1914.

The shops at Fitzgerald will require about one and one-half years for completion and the installation of machinery, and therefore the preparatory work on them should be commenced as soon as on the remainder of section 3, or August 1, 1912.

Borrow Pits.

The two principal borrow pits for grading purposes are located west of Thalmann and east of Montezuma. Both of these are on the property of the company and there is still some material remaining therein. There are small pits near Alma, Chatterton and Junction City, Ga., which furnish sand used for both embankment and ballast. These pits are nearly exhausted. There is a pit near Malone, Ala., from which a considerable amount of gravel for ballast was obtained. This pit is practically exhausted and the gravel obtained from it is of poor quality. At a number of points small amounts of borrow are required for the completion of the embankments. It is assumed that the contractor will provide them and the price fixed for grading covers the cost of obtaining this material, when necessary, outside the right of way.

Allowances.

To obtain pay quantities of grading on the one-way basis all embankment volumes were increased ten per cent. to cover shrinkage of the material therein. To ascertain the amount of material in excavation available to make the embankment, classified material quantities were swelled as follows: Loose rock, ten per cent.; solid rock, forty per cent. A mass diagram was then made to determine the distribution of material in accordance with the specifications of the Engineering Board in their Memorandum No. 287. Where the two-way basis was used ten per cent. in quantity was added to the embankments as inventoried to cover shrinkage.

Subsidence quantities were obtained by tests or inspection at specific locations. No percentage allowances were made.

The hidden quantities, which are principally quantities of excavation and masonry in foundations, were determined largely from the original construction note books of the railroad company, and where these were not available by agreement between the field men of the railroad and commission as the result of inspection on the ground.

The quantity of ballast obtained by measurement was increased by an allowance of ten per cent. to cover shrinkage and waste. There were no other additions or allowances made except that additions were made as follows to cover the loss and wastage occurring between the time the material is actually delivered and the time when the same material actually appears in the track:

Track Spikes	3 per cent.
Track Bolts	1 "
Nut Locks	2 "
Angle Bars	1¼ "

IV. REPRODUCTION COST.

Grading.

Reproduction prices for clearing and grubbing east of Montezuma were established as the result of a study of prices paid by railroads in adjacent territory having clearing and grubbing of the same general character.

On that portion of the line west of Montezuma the prices for clearing and grubbing were based on a weighted average of the prices actually paid for the construction of the road by the Atlantic & Birmingham Construction Company.

The grading prices east of Montezuma (valuation sections 1 to 5, inclusive) were established for work paid for on a two-way basis. These prices were established after a careful study of prices actually paid for the construction of the Waycross Air Line in territory east of Montezuma and construction work under similar conditions on other roads in adjoining territory. It was assumed that grading for road crossings and considerable amount of grading for station and shop grounds would be done under the same general contract and at the same prices as the roadbed grading.

For the embankment across the so-called "Buffalo Swamp" it was assumed that a brush and pole mattress would be constructed and the embankment built with material hauled by train from the borrow pit north of Thalmann. The price established for this work covers the excavation in the pit and the construction of the mattress. The price for haul is a special price established on the basis of the use of standard equipment operated on the permanent main track.

On the northern portion of valuation section 5 there is not available a sufficient amount of accessible embankment material. It was assumed that the necessary material would be excavated from the large borrow pit at Montezuma and hauled over the main track to the points where needed. The price of excavation includes the cost of excavation and the necessary temporary trestles, and the price for haul is established on the same basis as for haul from the pit at Thalmann.

A portion of the material from the Montezuma pit was also assumed to be hauled to the valuation section 6 at the east end of the Flint River Bridge, prices being established in the same manner as for the material used on section 5.

On that portion of the line west of Montezuma all roadbed grading was assumed to have been paid for on a one-way basis with a free haul of 500 feet, except in the special cases mentioned below. The prices established for excavation were based on a weighted average of the prices actually paid by the Atlantic & Birmingham Construction Company for the construction of the road, and a study of cost records of similar work. The price paid for haul by the construction company was based on 600-feet free haul in most cases and the weighted average of their prices was adjusted for the change in the length of haul from 600 feet to the 500 feet used in reproduction.

At Junction City, Ga., there is a large borrow pit containing sand. The necessary material for large embankments north of the pit was assumed to have been loaded by steam shovel and hauled by train. As this pit can be very cheaply operated a special price, which included the cost of temporary trestles, was established and a corresponding price was established for the train haul. There was a similar condition in several comparatively small cuts nineteen miles north of Junction City, which received the same treatment.

At the west end of valuation section 8 there is a very large cut from which a portion of the material needed for the construction of the yard property of the Georgia Terminal Company was obtained. The excavation of this material was priced on valuation section 8 of the Atlanta, Birmingham & Atlantic and the necessary haul for the placing of the material on the property of the Georgia Terminal Company was included in the reproduction estimate of that company.

Tunnels.

The prices actually paid by the Atlantic & Birmingham Construction Company were compared with prices for similar work in adjacent territory and found to be practically identical. For this reason the actual construction prices were used for reproduction.

Bridges, Trestles and Culverts.

The reproduction prices established for pipe and timber culverts and for bulkheads at bridges were used in other accounts, such as grading, road crossings, etc., where similar structures occurred.

The base price of cast-iron pipe was derived from the average sale prices furnished by the Central Cost Bureau. It was assumed that all this pipe would be purchased at Birmingham, Ala., by the railroad company and delivered at the foreign line junction point nearest to the point of use. An average freight rate was established and to this was added a hauling charge of sixty cents per ton mile with an average haul of seven miles.

These latter figures were based on the amounts actually paid by the construction company. There was also added a labor charge for placing based on the amounts paid by the Atlantic & Birmingham Construction Company and on other construction work in the same region.

The reproduction prices for pipe culverts made of other materials and for timber culverts were established in the same manner, except that it was assumed that the material would be purchased by the contractor at the most accessible point of manufacture.

The base prices for trestle timber and piles were obtained from compilations (furnished by the Central Cost Bureau) of prices paid in the States of Alabama and Georgia, and also by consideration of prices paid by the Atlanta, Birmingham & Atlantic Railroad and the Atlantic & Birmingham Construction Company.

To these base prices were added the weighted average freight from the points of manufacture to foreign line connecting points; a weighted average team haul based on the average distance from the junction points to the point of use; and the cost of placing, based on the cost of similar work on other roads.

The prices paid by the Atlantic & Birmingham Construction Company for sixty-four metal bridges were averaged and corrected for the difference between base price of metal at Pittsburgh at the time of the contract and $1.40 per hundred weight, which is considered to be a fair average base price. This price was checked by building up a price, starting with $1.40 as a base and adding manufacturing and erecting costs with freight. The prices so obtained were in substantial accord with the contract prices corrected for the change in base and therefore the latter were used for reproduction purposes.

The reproduction price for concrete masonry was built up. A price for cement was derived from compilations furnished by the Central Cost Bureau, to which was added an average cost of freight from the nearest railroad station to the point of use and forty cents per ton mile for an average wagon haul of six miles, which was practically the same as the amount paid by the construction company.

It was assumed that sand could be obtained locally within an average distance of one and a quarter miles of the point of use and to the base price was added the cost of haul.

The price of stone was established in the same manner, assuming an average haul from the crusher of one mile.

The labor cost of mixing and placing the concrete was based on actual cost records of the construction of a portion of the Atlanta, Birmingham & Atlantic. To this price was added fifteen per cent. to cover contractor's overhead expense and ten per cent. for contractor's profit. This built-up price was

used in all accounts where the masonry existed in a considerable amount. A less price was used for small quantities of masonry where there was no element of haul to be considered.

The reproduction prices of rubble masonry, riprap and similar items were based on records of contract prices of the Atlanta, Birmingham & Atlantic and other railroads in adjacent territory. The prices so obtained were used in all accounts where these items occurred.

Ties.

The base price of cross-ties was obtained from compilations of prices paid by a number of carriers in nearby territory, to which were added one and one-half cents each for inspection, three cents for handling at the material yard, and the freight in case of ties not procured locally. The allowance for handling in case of ties procured locally was reduced to one cent. The prices for switch ties, bridge and crossing timber were arrived at in the same manner except that the allowance for inspection was twenty-five cents per thousand feet board measure and twenty-five cents per thousand feet board measure for each handling.

Rail.

The reproduction cost of new rail delivered to the line of the Atlanta, Birmingham & Atlantic was furnished by the Central Cost Bureau. It was found that the Bessemer rail found to exist on all valuation sections west of Montezuma could be more cheaply reproduced by using rail manufactured at Ensley, Ala., than from any other mill. There is no Bessemer rail manufactured at Ensley, so that the reproduction price in effect substitutes open-hearth rail for Bessemer.

To the base price furnished by the Central Cost Bureau was added five cents per ton for inspection, a deduction of the same amount was made for short rail, an addition of fifty cents per ton for handling at material yards, and twenty-five cents per ton for handling over wharves on that portion of the rail shipped by water.

The base price of relay rail was established from a study of the prices obtained at a large number of *bona-fide* sales by several roads in the same region, including the Atlanta, Birmingham &

Atlantic. This base price was established as $23 per ton at material yards, to which was added fifty cents per ton for handling in the yard.

Other Track Material.

The Central Cost Bureau furnished the base price of spikes and compilations, from which were derived the reproduction prices of the other items of this account. To these prices were added freight to material yards and an allowance for handling of fifty cents per ton for spikes, bolts, frogs and switches, $2 per ton for tie plates and similar material.

In case of Bessemer frogs the same substitution of open-hearth frogs was assumed to be made as in the case of rail.

Ballast.

The reproductive price of stone and slag ballast was established from a study of Central Cost Bureau compilations and prices actually paid by the Atlanta, Birmingham & Atlantic, to which were added company haul at one-half cent per ton mile and cost of unloading at eleven cents per yard.

The reproductive cost of gravel and sand ballast was based on the estimated cost of loading at the pit with company haul and unloading cost added.

The Central Cost Bureau furnished compilations of cinder costs which were found to be the approximate estimated cost of loading. To the price obtained from this data were added the average weighted haul from Atlanta, Birmingham & Atlantic terminals and the cost of unloading.

Tracklaying and Surfacing.

The base price of tracklaying and initial surfacing was established after a study of contract prices in adjacent territory. To this base price additions were made to cover the haul on materials from the material yard, the additional cost of laying track on bridges, and the cost of maintenance (which was estimated to be $175 per mile for an average period of eight months). From the same sources were established reproductive prices for placing turnouts, crossings and track accessories.

It is assumed that the ballasting would be done by company forces and prices were established after a consideration of all available records.

Right-of-Way Fences.

The reproduction prices were based on Central Cost Bureau compilations for material, with freight and installation added. The installation costs were largely obtained from reports of the committee on fences, crossings and signs of the American Railway Engineering Association.

Crossings and Signs.

The derivation of reproductive prices for the major items of this account is the same as explained for similar items used elsewhere.

The price of signs was built up from the estimated cost of labor and material and compared with the prices given in the report of the Committee of the American Railway Engineering Association.

Buildings.

For the purpose of determining reproduction prices the buildings were divided into twenty-one types or classes, each type containing buildings of the same general character of construction, so that the cost of construction per cubic foot of buildings would be approximately the same or would follow a regular curve. The reproduction cost of such buildings as did not conform to the specifications of any of the types was determined by making a detailed bill of material and estimate for each building.

After the buildings had been assigned to their types a certain number were selected and detailed estimates made. These estimates were based on compilations of labor and material prices furnished by the Central Cost Bureau with the addition of proper freight and handling charges. The amount of labor required for the construction of the building was estimated by the senior architect, based on his experience and such records as were available. The buildings selected from each type for detailed estimates were those showing considerable variation in size. After the cubic-foot price was

determined for each building, a curve was plotted for the type and the cubic-foot price for other buildings of the type was determined from the curve. Samples of these curves are attached.

The cubic contents of a building were computed from the lowest point of the first floor construction to the average height of the roof, multiplied by the ground floor area. In computing the cost of combination stations the passenger and freight portions were priced separately with a different cubic-foot price.

All foundation work, plumbing, lighting and platforms are not included in the cubic-foot price, but are estimated separately, the basis for the estimate being the same as above indicated.

To all estimated costs for labor and material there were added ten per cent. for overhead expense and ten per cent. for contractor's profit.

Water Stations.

The reproduction prices were built up from material prices obtained from Central Cost Bureau compilations, with freight and installation added. Installation costs were estimated from railroad records and from reports of the Railroad Bridge & Building Association and American Railway Engineering Association.

Fuel Stations.

Reproduction costs were obtained in the same manner as in the case of timber bridges, except that no addition was made for team haul of materials.

Wharves and Docks.

The reproduction cost of dredging was established from the average of a number of large contracts for dredging similar material in other southern harbors. The other unit prices in this account were obtained from the Atlanta, Birmingham & Atlantic cost records as shown in the Accounting Section's Exhibit No. 58, or were built up on the same basis as the units for similar items in the Bridge Account.

Telegraph and Telephone Lines.

It was asumed in establishing reproduction prices that all material would be purchased by the railroad and installed by company forces. Material prices were generally obtained from cost bureau compilations, from cost records of telephone companies, and from Atlanta, Birmingham & Atlantic vouchers. The installation costs were worked out in detail on the basis of labor, subsistence and supervision, based on private records of the cost of similar work.

Signals and Interlockers.

There are two mechanical interlocking plants on the Atlanta, Birmingham & Atlantic, one located at Offerman, Ga., and the other at Hortense, Ga. The Atlanta, Birmingham & Atlantic and the Atlantic Coast Line agreed that these two plants were owned fifty per cent. by each company, and they are so reported.

It was assumed that for reproducing these plants a contract would be let by the Atlanta, Birmingham & Atlantic to the signal company. The signal company price is assumed to include the cost of labor, material and transportation. The material and labor costs were deduced from prices, catalogue discounts, and labor rates furnished by the Central Cost Bureau, with the addition of ten per cent. to the cost of labor to cover insurance, use of tools, and accounting, and an allowance of fifteen per cent. on labor only for contractor's profit.

It was assumed that train order signals would be erected by the same force that erected the building in which the office was located. The costs of these signals delivered on line of road were obtained from the Atlanta, Birmingham & Atlantic records, which were found to be practically the same as those furnished by the Central Cost Bureau.

Power Transmission and Distribution Systems, and Power Line Poles and Fixtures.

Material cost compilations were obtained from the Central Cost Bureau and installation costs were estimated, based on Atlanta, Birmingham & Atlantic and other records.

Roadway Machines.

The reproduction prices of these machines are generally the same as the cost to the Atlanta, Birmingham & Atlantic, including freight to the company's line.

Roadway Small Tools.

Reproduction prices were obtained from Central Cost Bureau compilations based on the returns from Valuation Order No. 14, on prices paid by the Atlanta, Birmingham & Atlantic, and, where neither of these was available, on catalogues and discount sheets. A large proportion of the Atlanta, Birmingham & Atlantic tools were obtained from Louisville, Ky., and therefore it was assumed Louisville would be the source of these tools and freight to the Atlanta, Birmingham & Atlantic from that point was added.

Shop Machinery.

Unit prices for machines we obtained from the Atlanta, Birmingham & Atlantic records, and where no record was available these prices were obtained from catalogues and, discount sheets secured from manufacturers and from the Central Cost Bureau. To these prices were added freight to destination and the estimated cost of installation.

The reproduction prices for small tools were obtained by adding freight to the base prices of the tools obtained from catalogues and discount sheets.

Steam Locomotives.

The reproduction prices for locomotives were obtained by using the actual prices paid by the Atlanta, Birmingham & Atlantic and correcting these to bring them to the average price for the five years preceding the date of valuation, using for this purpose the diagram furnished by the Baldwin Locomotive Works. Prices for locomotives purchased second hand by the Atlanta, Birmingham & Atlantic were actual prices paid. To both these base prices were added the cost of all specialties freight, and breaking in.

Passenger and Freight Cars, and Work Equipment.

Reproduction prices are the actual prices paid by the Atlanta, Birmingham & Atlantic with freight and betterments added.

Account 1. Engineering.

The reproduction cost of engineering was determined by the rule recommended in the Board's Memorandum No. 300, which reads "the amount included under account 1, engineering, shall be stated as a percentage of accounts 3 to 46, inclusive, except accounts 39, 40, 41 and 42. Such percentage shall be determined by a consideration of the construction records of similar railways."

The record data of similar railways available at this time was so limited in extent that the percentages accepted were based primarily on the records of the Atlantic & Birmingham Construction Company for that portion of the line from Montezuma west and north. For that portion east of Montezuma a percentage was fixed appropriate to the character of the property. Very little engineering on this part of the property was required or was done, as is evidenced by a statement on file from the chief engineer who built the major portion of this line east of Montezuma.

Valuation section 1, the Brunswick Terminal, required considerable engineering and five per cent. was adopted as appropriate. A percentage of five was adopted for valuation section 3, which includes the Fitzgerald shops.

For valuation sections 2, 2a, 4, 4a and 5 a percentage of two and one-half was used.

For valuation sections 6, 7, 8, 10, 11 and 12 a percentage of four was adopted.

For the Alabama Terminal Company, sections 13, 13a and 14, a percentage of five was adopted.

For the Georgia Terminal Company a percentage of five was adopted.

General Expenditures.

Accounts 71 to 77 (excepting account 76) were reckoned as percentages of road and equipment accounts 1 to 58, inclusive (excepting accounts 3, 39, 40 and 47).

The record data available on the subject was a tabulated statement prepared by the accountants in the several divisions. These records were so varying and covered such an inconsiderable mileage that they could only be used in a general way. Allowances made in former appraisals were also considered and it was decided that two per cent. was an appropriate figure to cover accounts 71 to 77, inclusive (excepting account 76, interest during construction). A subdivision of the two per cent. to the several accounts was made as follows:

Account 71	.10
" 72	.60
" 73	.30
" 74	.10
" 76	.50
" 77	.40
	2.00

Account 76. Interest during Construction.

Interest on the money necessary for construction was reckoned at the rate of five per cent. per annum on all road and equipment accounts excepting account 2, land for transportation purposes.

Interest on accounts 1 to 47, inclusive (excepting accounts 2 and 39), was reckoned for one-half the construction period, plus three months, of a particular section, it being considered essential to have the money on hand three months in advance of actual expenditure.

Interest on equipment accounts 51–58, inclusive, was reckoned at 5 per cent. for a period of three months.

Interest on general expenditures accounts 71, 72, 73, 74, 75 and 77 was reckoned for one-half the total construction period.

V. DEPRECIATION.

Generally, depreciation was estimated as instructed in Memorandum of the Engineering Board No. 226 as revised November 6, 1915, the total service life allowed being the maximum given in that memorandum, but modified in specific cases where field inspection indicated that modification should be made.

The instructions contained in the memorandum were departed from with such variations and details as are indicated below:

Bridges, Trestles and Culverts.

All items of this account were depreciated in accordance with memorandum No. 226, using $8.00 per ton as the net scrap value of metal bridges. No scrap allowance was made for other items in this account.

Ties.

The condition of the ties on the Atlanta, Birmingham & Atlantic was not such as to permit the use of fifty per cent. condition. The ties on the road east of Montezuma had been allowed to reach a subnormal condition and those west of that point were above normal on account of the fact that the first heavy renewal after construction was just being completed at the date of valuation. The depreciation of ties was therefore determined by inspection and a study of the renewal records of the company.

Rail.

Between Fitzgerald, Atlanta, and Birmingham grades and curvature are considerably heavier than east of Fitzgerald. From a study of rail history on other lines with similar traffic and conditions it was found that the life of new rail eighty pounds per yard in weight varies from ten to twenty years, and therefore the average total service life of new rail on the portion of the Atlanta, Birmingham & Atlantic west of Fitzgerald was assumed to be eighteen years and on the portion east of Fitzgerald twenty-five years. The length of time in service was determined from the records of the company.

Relay rail was allowed a total service life of fifty years, and its age when found in main track was fixed by the records of the company.

There were no records available as to the date of construction of side tracks, and therefore it was assumed generally that rail rolled since the date of construction of the portion of the road on which it was found had been put into side-track

use when new and it was given a total service life of seventy-five years from new to scrap. After eliminating the rail in this class all other side track rail was assumed to have been laid as relay and its age as relay rail was obtained by subtracting fifteen years, its assumed life as new rail, from the date at which it was rolled. The total service life as relay rail was assumed to be fifty years.

The value of relay rail was placed at $23 per gross ton at the material yard. It was assumed that the cost of moving the rail to the material yard and handling it there would amount to seventy-five cents per ton, leaving a net value of $22.25 per ton, which can be deducted from the reproduction price to obtain wearing value of the rail in its first cycle of use as new rail. Copies of diagrams for obtaining the depreciated prices of new rail are attached.

The wearing value of relay rail was obtained in the same manner using a net price of $10 per ton for scrap rail.

Other Track Material.

The various materials in this account were depreciated in accordance with memorandum No. 226; the average total service life for frogs and switches being assumed at sixteen years, of switch stands twenty years, of derails fifty years, and of crossing frogs twelve years. The net scrap value was as follows:

Frog and switch scrap.....$10.00 per ton.
Angle bars, tie plates, etc..... 10.50 " "

Track Laying and Surfacing.

This account was depreciated in accordance with the Engineering Board's Memorandum No. 294.

Buildings.

Depreciation of buildings was in accordance with memorandum No. 226, using the total service life as indicated in that memorandum except where field observations showed that this life should be reduced in particular cases.

Wharves and Docks.

The depreciation assigned to dredging in this account is the ratio between the amount of excavation originally made and

the amount found at the time of inventory, so that the difference between the reproduction cost and the reproduction cost less depreciation represents the expenditures, at the unit reproduction price, that it would be necessary to expend in order to restore the original depth of water. The structures were depreciated in the same manner as bridges.

Signals and Interlockers.

The principles of memorandum 226 were followed, but it was necessary to compute a weighted average age and total service life. The scrap prices were computed on the various classes of material at the prices indicated elsewhere and combined into a percentage of the cost of reproduction new.

Shop Machinery and Tools.

Memorandum 226 was followed in all respects, an allowance being made for scrap at the net rate of $8.50 per ton for machines and $10 per ton for small tools.

The scrap allowance for copper wire was eighty per cent. of its cost new.

Rolling Equipment.

All rolling equipment was depreciated in accordance with the field inspection of the parts, this inspection taking account of obsolescence of the entire unit by limiting the life of all parts to the period which would elapse before the unit was expected to go out of service. The net scrap allowances were $9 per ton for locomotives and $8.50 per ton for the metal portions of cars.

Account 1. Engineering.

This account was not depreciated.

Accounts 71 to 77.

These accounts were depreciated by applying the ratio of the cost of reproduction new of accounts 1 to 58, inclusive (except account 2, land for transportation purposes), to the cost of reproduction less depreciation.

APPENDICES

ATLANTA, BIRMINGHAM & ATLANTIC RAILROAD COMPANY

APPENDIX A.

Telegraph Property.

The Atlanta, Birmingham & Atlantic Railroad Company constructed a portion of the telegraph line along the road. They then leased this property to the Western Union Telegraph Company, reserving the right to limited use in accordance with the synopsis of the contract which follows:

Contract between the Western Union Telegraph Company, party of the first part, and the Atlanta, Birmingham & Atlantic Railroad Company, party of the second part, and the Brunswick Steamship Company, party of the third part, dated July 6, 1910.

Under this contract the railroad company leases all of its telegraph pole lines, fixtures, wires and apparatus to the telegraph company for a term of twenty-five years. The property leased is to form part of the telegraph company's general system to be operated under the telegraph company's control.

The expense of maintenance of and extensions to the property is to be borne by all parties divided on the basis of the material and skilled labor being furnished by the telegraph company and the unskilled and free transportation of material and men being furnished by the railroad company and steamship company. The railroad company has a limited use of the leased property and must pay all expenses to provide facilities required by it in addition to such limits.

The cost of reproduction and the cost of reproduction less depreciation are shown in the appendix, but these totals are not carried into the summary of property owned and used by the Atlanta, Birmingham & Atlantic Railroad.

APPENDIX B.

Account 705.

The Atlanta, Birmingham & Atlantic leases the amount of rail shown on this appendix report and receives interest on the prices shown. They also lease from the Fitzgerald, Ocilla & Broxton Railroad 282.55 tons of rail at the prices shown in the appendix. This rail is in turn released so that it is proper to deduct the base value of the rail owned by the Fitzgerald, Ocilla & Broxton from the lease value of the rail leased to others by the Atlanta, Birmingham & Atlantic, and this is done.

APPENDIX C.

The various sheets of this appendix show a number of overgrade crossings along the line of the road which were wholly or in part paid for by the Atlanta, Birmingham & Atlantic, but no agreement has been reached between the Atlanta, Birmingham & Atlantic and the other railroads interested. Therefore, in accordance with instructions, these structures are not included in the reproduction cost of the Atlanta, Birmingham & Atlantic.

APPENDIX D.

Accounts 716 and 201.

These items were obtained from inventories furnished by the railroad company and the prices used are largely furnished in the same manner. The totals are not carried into the summary of reproduction cost of the Atlanta, Birmingham & Atlantic.

Account 201 represents the engineering equipment reported by the Atlanta, Birmingham & Atlantic. If this is equipment purchased for construction its cost is included in the engineering account and its inclusion would represent a duplication. There is no certainty that this is the case, but the total is not carried into the reproduction cost of the road.

APPENDIX E.

Assessments for Public Improvements.

The amounts shown in this appendix are obtained from the records of the Atlanta, Birmingham & Atlantic and from the field inspection. These amounts are not included in the summary showing the total value of property.

APPENDIX F.

This appendix contains the estimated reproduction cost and reproduction cost less depreciation of all foundry patterns on the road.

There is no information as to whether the original cost of those patterns was charged to capital or operating expenses.

The reproduction cost of these patterns is not carried into the summary of Atlanta, Birmingham & Atlantic property.

GEORGIA TERMINAL COMPANY

LEASED TO THE

ATLANTA, BIRMINGHAM & ATLANTIC
RAILROAD COMPANY

GEORGIA TERMINAL COMPANY.

The Gate City Terminal Company was incorporated May 24, 1906, in the State of Georgia for the purpose of constructing and operating a railroad from Howells Station to Atlanta, a distance of three miles. On March 30, 1907, its name was changed to the Georgia Terminal Company and this latter company was incorporated. On July 31, 1907, all the property and franchises of the Georgia Terminal Company were leased for a term of ninety-nine years to the Atlanta, Birmingham & Atlantic Railroad, thus furnishing the latter company with terminal facilities in Atlanta.

The Georgia Terminal Company owns about two hundred acres of land and in addition to the tracks listed above has a freight house, team tracks with well-paved driveways, a large concrete warehouse, and about two hundred residences, the two latter items being for non-carrier purposes.

The track and structures used for railroad purposes were constructed by the Terminal Company in 1907 and 1908 and are as follows:

All in Georgia.

Val. Sec.	Owning Co.	Location	Miles of Road	Miles of 2d Main Track	Miles of Yard Track and Sidings	Miles of all Track
9	Georgia Terminal Co.....	Atlanta, Ga.....	2.358	.....	9.613	11.971

Grading.

The same methods were used for pricing grading items as were used on that portion of the Atlanta, Birmingham & Atlantic west of Montezuma. There is a considerable yardage of waste on the west end of valuation section 8, Atlanta, Birmingham & Atlantic, and it was assumed that this would be hauled into the embankments on the Georgia Terminal Company's property. The reproduction cost of excavating this material is shown on section 8, but the cost of haul is shown on the Georgia Terminal report. The shortage in embankment material remaining is assumed to be supplied by

borrowing on section 8, Atlanta, Birmingham & Atlantic, and hauling to place on the Georgia Terminal property. In the case of this material both the cost of excavation and the cost of haul are shown as a part of the reproduction cost of the Georgia Terminal Company.

Other Accounts.

The pricing and depreciation methods on other accounts are the same as those outlined for the Atlanta, Birmingham & Atlantic.

The Georgia Terminal Company owns no equipment or roadway tools.

It is assumed that the construction of this property will be commenced January 1, 1912, and completed June 30, 1914.

APPENDIX A.

The Georgia Terminal Company originally contemplated the construction of a much more extensive terminal than was actually built. A portion of the grading was completed and an excavation was made across Mitchell Street. The city of Atlanta required the construction of an overhead crossing consisting of a reinforced concrete box as shown on Appendix Sheet A.

This structure has been boarded up at the ends and is rented for a stable. It has never been used for carrier purposes and has been reported to the land section at the request of the valuation attorney as a non-carrier structure.

INTENTIONAL SECOND EXPOSURE

GEORGIA TERMINAL COMPANY.

The Gate City Terminal Company was incorporated May 24, 1906, in the State of Georgia for the purpose of constructing and operating a railroad from Howells Station to Atlanta, a distance of three miles. On March 30, 1907, its name was changed to the Georgia Terminal Company and this latter company was incorporated. On July 31, 1907, all the property and franchises of the Georgia Terminal Company were leased for a term of ninety-nine years to the Atlanta, Birmingham & Atlantic Railroad, thus furnishing the latter company with terminal facilities in Atlanta.

The Georgia Terminal Company owns about two hundred acres of land and in addition to the tracks listed above has a freight house, team tracks with well-paved driveways, a large concrete warehouse, and about two hundred residences, the two latter items being for non-carrier purposes.

The track and structures used for railroad purposes were constructed by the Terminal Company in 1907 and 1908 and are as follows:

All in Georgia.

Val. Sec.	Owning Co.	Location	Miles of Road	Miles of 2d Main Track	Miles of Yard Track and Sidings	Miles of all Track
9	Georgia Terminal Co.....	Atlanta, Ga.....	2.358	.....	9.613	11.971

Grading.

The same methods were used for pricing grading items as were used on that portion of the Atlanta, Birmingham & Atlantic west of Montezuma. There is a considerable yardage of waste on the west end of valuation section 8, Atlanta, Birmingham & Atlantic, and it was assumed that this would be hauled into the embankments on the Georgia Terminal Company's property. The reproduction cost of excavating this material is shown on section 8, but the cost of haul is shown on the Georgia Terminal report. The shortage in embankment material remaining is assumed to be supplied by

borrowing on section 8, Atlanta, Birmingham & Atlantic, and hauling to place on the Georgia Terminal property. In the case of this material both the cost of excavation and the cost of haul are shown as a part of the reproduction cost of the Georgia Terminal Company.

Other Accounts.

The pricing and depreciation methods on other accounts are the same as those outlined for the Atlanta, Birmingham & Atlantic.

The Georgia Terminal Company owns no equipment or roadway tools.

It is assumed that the construction of this property will be commenced January 1, 1912, and completed June 30, 1914.

APPENDIX A.

The Georgia Terminal Company originally contemplated the construction of a much more extensive terminal than was actually built. A portion of the grading was completed and an excavation was made across Mitchell Street. The city of Atlanta required the construction of an overhead crossing consisting of a reinforced concrete box as shown on Appendix Sheet A.

This structure has been boarded up at the ends and is rented for a stable. It has never been used for carrier purposes and has been reported to the land section at the request of the valuation attorney as a non-carrier structure.

ALABAMA TERMINAL RAILROAD COMPANY

LEASED TO THE

ATLANTA, BIRMINGHAM & ATLANTIC RAILROAD COMPANY

ALABAMA TERMINAL RAILROAD COMPANY.

The Alabama Terminal Railroad Company was incorporated March 23, 1907, in perpetuity to build and operate a railroad from Reeders Gap to Birmingham, Ala., and from Mulga Junction to Mulga. On July 31, 1907, all of the property and franchises of the Alabama Terminal Railroad Company were leased to the Atlanta, Birmingham & Atlantic Railroad for a term of ninety-nine years, and on September 8, 1913, with the consent of the latter company and its receiver, that portion of the property from Mulga Junction to Mulga was leased to the Woodward Iron Company, a corporation of the State of Delaware. The remainder of this property forms the Birmingham Terminal of the Atlanta, Birmingham & Atlantic Railroad Company.

The property of the Alabama Terminal Railroad Company, used by the Atlanta, Birmingham & Atlantic, consists of the main track from Reeders Gap, a short distance east of Bessemer, to Birmingham, and includes the yard, freight house and team tracks in the latter city.

The Alabama Terminal Railroad Company also lease that portion of their property extending from Mulga Junction to Mulga (valuation section 13a) to the Woodward Iron Company, and this property is operated by the iron company in connection with their furnaces and mines.

The property of this company is shown in the following table:

All in Alabama.

Val. Sec.	From	To	Miles of Road	Miles of Yard Tracks and Sidings	Miles of all Track
13	Ala. Ter. R. R. Co.	Birmingham	10.044	3.618	13.662
13a	Mulga Junction	Mulga	14.285	4.241	18.526
14	Ala. Ter. R. R. Co.	Birmingham	2.716	9.110	11.826
	Total in Alabama		27.045	16.969	44.014

The property of the Alabama Terminal was constructed in the years 1908 to 1910, inclusive, according to the same standards as the Atlanta, Birmingham & Atlantic west of

Montezuma. The methods of reproduction, pricing, and depreciation are the same as on adjacent valuation sections owned by the Atlanta, Birmingham & Atlantic.

It is assumed that the construction of all valuation sections of this property will be commenced July 1, 1911, and completed June 30, 1914.

APPENDIX A.

This appendix contains the reproduction cost and cost of reproduction less depreciation of an overhead bridge constructed entirely at the expense of the Alabama Terminal, but which is not included in the reproduction cost in accordance with existing instructions.

INTENTIONAL SECOND EXPOSURE

ALABAMA TERMINAL RAILROAD COMPANY.

The Alabama Terminal Railroad Company was incorporated March 23, 1907, in perpetuity to build and operate a railroad from Reeders Gap to Birmingham, Ala., and from Mulga Junction to Mulga. On July 31, 1907, all of the property and franchises of the Alabama Terminal Railroad Company were leased to the Atlanta, Birmingham & Atlantic Railroad for a term of ninety-nine years, and on September 8, 1913, with the consent of the latter company and its receiver, that portion of the property from Mulga Junction to Mulga was leased to the Woodward Iron Company, a corporation of the State of Delaware. The remainder of this property forms the Birmingham Terminal of the Atlanta, Birmingham & Atlantic Railroad Company.

The property of the Alabama Terminal Railroad Company, used by the Atlanta, Birmingham & Atlantic, consists of the main track from Reeders Gap, a short distance east of Bessemer, to Birmingham, and includes the yard, freight house and team tracks in the latter city.

The Alabama Terminal Railroad Company also lease that portion of their property extending from Mulga Junction to Mulga (valuation section 13a) to the Woodward Iron Company, and this property is operated by the iron company in connection with their furnaces and mines.

The property of this company is shown in the following table:

All in Alabama.

Val. Sec.	From	To	Miles of Road	Miles of Yard Tracks and Sidings	Miles of all Track
13	Ala. Ter. R. R. Co.	Birmingham	10.044	3.618	13.662
13a	Mulga Junction	Mulga	14.285	4.241	18.526
14	Ala. Ter. R. R. Co.	Birmingham	2.716	9.110	11.826
	Total in Alabama		27.045	16.969	44.014

The property of the Alabama Terminal was constructed in the years 1908 to 1910, inclusive, according to the same standards as the Atlanta, Birmingham & Atlantic west of

Montezuma. The methods of reproduction, pricing, and depreciation are the same as on adjacent valuation sections owned by the Atlanta, Birmingham & Atlantic.

It is assumed that the construction of all valuation sections of this property will be commenced July 1, 1911, and completed June 30, 1914.

APPENDIX A.

This appendix contains the reproduction cost and cost of reproduction less depreciation of an overhead bridge constructed entirely at the expense of the Alabama Terminal, but which is not included in the reproduction cost in accordance with existing instructions.

MSH 21303

END OF
TITLE